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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/319,324	06/03/1999	GREG ALAN KRANAWETTER	RCA88228	2806

7590 10/02/2003

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EXAMINER

SENF1, BEHROOZ M

ART UNIT	PAPER NUMBER
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2613

DATE MAILED: 10/02/2003

15

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/319,324

Applicant(s)

KRANAWETTER ET AL.

Examiner

Behrooz Senfi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 11, 12, 13.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 – 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park (US 5,675,424) in view of Yoon et al (EP 0 688 135).

Regarding claim 1, Park '424 discloses "an MPEG compatible digital signal Processing" (i.e. figs. 3a and 3b), and an "input network for receiving a data stream of MPEG coded data" (i.e. figs. 3b and 4, abstract), and a "coupling network responsive to the data stream for deriving therefrom a predetermined sequence of image data" (i.e. figs. 3a -3b, MUX/DEMUX), and "coupling network comprises interleaving means responsive to the data-stream of MPEG" (i.e. figs. 3a -3b, for example; Reduced Image Data is an MPEG encoded Data stream, and Multiplexer (interleave) and De-Multiplexer (De-interleave) is considered as an coupling network for interleaving/de-interleaving the data-streams 12a – 12n, in which data-stream 12a is considered as first and second or third or fourth or etc. and also 12b is considered as third and fourth, and further to 12n as 1st and nth and etc), and "selectable for producing either high or low/reduced resolution data image reproduction of the image" (whole purpose of dividing the bit stream to multiple bit streams and processing through multiple encoders

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and decoders are to make the signal selectable/suitable for high/low resolution based on the desired application.

Park '424 fails to explicitly teach the newly added limitation "spatially adjacent pixel". However, such features are well known and used as evidenced by Yoon '135 (i.e. figs. 6a – 6b). Therefore, taking the combined teaching of Park '424 and Yoon '135 as a whole, it would have been obvious to modify the signal processing for interleaving spatially adjacent pixel block components for improving video image decoding/decompressing incoming compressed video image. Doing so would provide improvement of video image decoding/decompressing incoming compressed video image (i.e. col. 1, lines 2 – 4).

Regarding claim 2, combination of Park '424 and Yoon '135 teaches "data block components of an MPEG compatible macro-block containing pixel representative" (i.e. col. 3, lines 35+ and lines 56+ of Park).

Regarding claims 3 – 4, 8 – 9 and 14 - 15, combination of Park '424 and Yoon '135 teaches "first data stream (P1) of interleaved first and second spatially adjacent pixel block components from each macro-block of the MPEG coded data and second data stream (P2) of interleaved third and fourth spatially adjacent pixel block components from each macro-block of the MPEG coded data" (i.e. figs. 5a – 6b of Yoon).

Regarding claim 5, the limitations claimed are substantially similar to claim 1, therefore the grounds for rejecting claim 1, also apply here. As for the additional

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limitation "decoder for decoding the MPEG", see (i.e. fig. 3b, unit 62a-n of park, and abstract of Yoon).

Regarding claim 6, memory for storing image (i.e. fig. 4, memory 85 and 86 of Park, and figs 1 and 2 of Yoon), motion compensation (i.e. col. 3, lines 15+ of Park, and fig. 1, 330, 430, 530, and 630 of Yoon).

Regarding claim 7, limitations claimed are substantially similar to claims 1 and 5, therefore the grounds for rejecting claims 1 and 5 also apply here.

Regarding claim 10, as for processing step includes DPCM processing of pixel data.

Note; MPEG is a specific kind of DPCM processing.

Regarding claim 11, limitations claimed are substantially similar to claims 5 and 6, therefore the grounds for rejecting claims 5 and 6 also apply here.

Regarding claim 12, processing step comprises the steps of predicting pixel values and compressing pixel values, would have been obvious over MPEG data processing.

Regarding claim 13, limitations claimed are substantially similar to claims 1 and 7, therefore the grounds for rejecting claims 1 and 7, also apply here.

Conclusion

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Behrooz Senfi** whose telephone number is **(703)305-0132**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Chris Kelley** can be reached on **(703)305-4856**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

Or faxed to:

(703) 872-9314

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

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Any inquiry of a general nature or relative to the status of the application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

B. S. B. S.

9/30/2003

VULE
PRIMARY EXAMINER